

WELL SUMMARY

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Location ID: ST-3-486 Field Representative(s): M. Canavan, D. Menzie,
Joyce Chapman-Fahey

Date Started: 07/18/91 Date Completed: 08/08/91

Northing: 230899.085 Easting: 400668.007

Brass Cap: 4495.98 Outer Casing: 4496.88 Inner Casing: 4497.61

Drilling Method: Mud/air Foam Rotary Drilling Contractor: Larjon Drilling Co.

Driller: D. Sanchez/J. Gower

Total Depth Borehole: 510' Total Depth Well Casing: 501.77'

Total Depth Surface Casing: 58'

Diameter Well Casing: 4" Diameter Surface Casing: 10"

Length of Bottom Blank: 5.35'

Type of Screen: 10' extra strength 0.02 slot

Screen Interval: 486.00' to 496.42'

Water First Detected: water not detected while drilling Water Level Open Borehole: 426.00'
(T.S.C. (07/31/91))

Water Level Cased Borehole: 428.13' (T.O.C.) (08/09/91)

Quik-Foam Use: 3 gal.

Estimated Water Use: 5,400 gallons

Well Casing:

4in x 3ft SCD 40 PVC:

4in x 5ft SCD 40 PVC:

4in x 10ft SCD 40 PVC:

4in x 20ft SCD 40 PVC:

Total SCD 40 PVC: ft

4in x 3ft SCD 5 SS pipe:

4in x 5ft SCD 5 SS pipe: 5.01

4in x 10ft SCD 5 SS pipe:

4in x 20ft SCD 5 SS pipe:

Total SCD 5 SS pipe: 5.01 ft

stock SS centralizers:

custom SS centralizers: 1 set

4"x2' SS locking riser: 1.99 ft

4" SS locking cap: 1

4" SS female cap: 1 ft

2 ASTM male adaptor: .54

Johnson male adaptor: .29

4in x 5ft SCD 10 SS pipe: 5.35

4in x 10ft SCD 10 SS pipe: 320.08

4in x 20ft SCD 10 SS pipe: 160.25

Total SCD 10 SS pipe: 485.68 ft

Well Completion:

100# bags 16/40 sand:	36	bags
100# bags 10/20 sand:	0	bags
100# bags 8/14 sand:	0	bags
100# bags 8/20 sand:	11	bags

94# bags cement:	166	bags
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5 gal. buckets bentonite:	0	buckets
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50# bentonite powder:	16	bags
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Benseal:	½	bags
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Surface Casing:

94# bags cement:	35	bags
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50# bags bentonite powder:	4	bags
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Grout:	0	bags
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Pertinent Field Notes:

07/17/91	Steam clean and mobilize mud rotary equipment to site, remove and repair rig jack. - Menzie
07/18/91	Drill mud rotary (12¼" tricone mill tooth bit) pilot hole from 0'-58'. - Menzie
07/19/91	Reamed pilot hole from 12¼ to 16". Installed and grouted surface casing. - Chapman-Fahey
07/22/91	Demobilize Frank's rig from site. - Chapman-Fahey
07/26/91	Steam clean BE rig and set up the air/foam rotary equipment for drilling. Drilled from 58'-185'. - Chapman-Fahey
07/29/91	Air/foam drill from 185'-485'. No visible signs of water. - Chapman-Fahey
07/30/91	Water level measured at 427.15 (T.O.D.). Air foam drill from 485'-510' (TD). - Chapman-Fahey
07/31/91	The hole is logged. Supplies for completion are steam cleaned and taken to site. Equipment is set up for completion. - Chapman-Fahey

07/31/91 Water level is measured at 426.00' (T.S.C.)

08/01/91 Water level is measured at 425.93' (T.S.C.). Casing is run, screen is set at 486'-496'.42. The gravel pack is put into 476.42'. The seal is pumped on top of gravel pack. Top of seal at 474.58'. - Chapman-Fahey

08/02/91 Filler sand is poured from 474.58 to 415.92'. - Chapman-Fahey

08/05/91 The first load of grout is poured. No grout invasion. - Chapman-Fahey

08/06/91 Second load of grout is poured from 172.42' to surface. - Chapman-Fahey

08/07/91 Water level is measured at 428.18' (TOC). Bail well and install pump in well.
- Chapman-Fahey

08/08/91 1128 gallons were pumped for development. Well developed. Pull pump.
- Chapman-Fahey

08/08/91 Notified Lockheed that well is developed. - Canavan